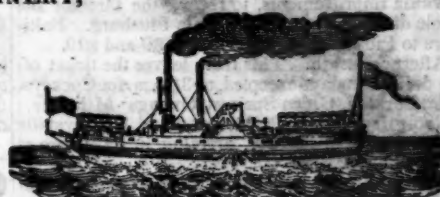


AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,

AND MINES.

ESTABLISHED 1831.



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SATURDAY, MAY 23, 1846.

[WHOLE No. 517, VOL. XIX.

BOSTON AND PROVIDENCE RAILROAD. Passenger Notice. Summer Arrangement. On and after Monday, April 6, 1846, the Passenger Trains will run as follows:

For New York—Night Line, via Stonington. Leaves Boston every day, but Sunday, at 5 p.m. Accommodation Trains, leave Boston at 7½ a.m. and 4 p.m., and Providence at 8 a.m. and 4½ p.m. Dedham trains, leave Boston at 8 a.m. 12½ m., 3½ p.m., and 6½ p.m. Leave Dedham at 7 a.m. and 9½ a.m. and 2½ and 5½ p.m. Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7:20 a.m. and 3½ p.m. All baggage at the risk of the owners thereof. 31 ly W. RAYMOND LEE, Sup't.

BRANCH RAILROAD AND STAGES CONNECTING with the Boston and Providence Railroad. Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

NORWICH AND WORCESTER RAILROAD. Summer Arrangement, commencing Monday, April 6, 1846.

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 1½ p.m. train from Boston.

New York Train via Long Island Railroad: Leave Allyn's Point for Boston, about 1 p.m., daily, except Sunday.

Leave Worcester for New York, about 10 a.m., stopping at Webster, Danielsonville, and Norwich.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the steamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 4½ p.m., daily, except Sunday, stopping at Webster, Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Special contracts will be made for cargoes, or large quantities of freight, on application to the superintendent.

Fares are Less when paid for Tickets than when paid in the Cars. 32 ly J. W. STOWELL, Sup't.

BOSTON AND MAINE RAILROAD. Upper Route, Boston to Portland via, Reading, Andover, Haverhill, Exeter, Dover, Great Falls, South & North Berwick, Wells, Kennebunk and Saco. Summer Arrangement, 1846.

On and after April 13, 1846, Passenger Trains will leave daily, (Sundays excepted,) as follows: Boston for Portland at 7½ a.m. and 2½ p.m. Boston for Great Falls at 7½ a.m., 2½ and 4½ p.m. Boston for Haverhill at 7½ and 11½ a.m., 2½, 4½ and 6 p.m. Boston for Reading at 7½, 9, and 11½ a.m., 2½, 4½, 6 and 8 p.m. Portland for Boston at 7½ a.m., and 3 p.m. Great Falls for Boston at 6½ and 9½ a.m., and 4½ p.m. Haverhill for Boston at 6½, 8½, and 11 a.m., and 4 and 6½ p.m. Reading for Boston at 6½, 7½ and 9½ a.m., 12 m., 1½, 5 and 7½ p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. CHAS. MINOT, Sup't.

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHICALOGA, 80 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 388 miles in length, from Charleston to Oothicaloga on the Oostenanla River, in Cass Co., Georgia.

Rates of Freight, and Passage from Augusta to Oothicaloga.

On Boxes of Hats, Bonnets, and Furniture per foot.....16 cts.

" Dry goods, shoes, saddlery, drugs, etc., per 100 lbs.....95 "

" Sugar, coffee, iron, hardware, etc.....65 "

" Flour, bacon, mill machinery, grindstones, etc.....33½ "

" Molasses, per hogshead \$9.50; salt per bus.20 "

" Ploughs and cornshellers, each.....75 "

Passengers \$10.50; children under 12 years of age half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothicaloga.

J. EDGAR THOMSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. 44 ly

SUMMER ARRANGEMENT.—NEW YORK AND ERIE RAILROAD LINE, from April 1st until further notice, will run daily (Sundays excepted) between the city of New York and Middletown, Goshen, and intermediate places, as follows:

FOR PASSENGERS—Leave New York at 7 A.M. and 4 P.M. " Middletown at 6½ A.M. and 5½ P.M. FARE REDUCED to \$1.25 to Middletown—way in proportion. Breakfast, supper and berths can be had on the steamboat.

FOR FREIGHT—Leave New York at 5 P.M. " Middletown at 12 M. The names of the consignee and of the station where to be left, must be distinctly marked upon each article shipped. Freight not received after 5 P.M. in New York. Apply to J. F. Clarkson, agent, at office corner of Duane and West sts.

H. C. SEYMOUR, Sup't. March 25th, 1846.

Stages run daily from Middletown, on the arrival of the afternoon train, to Milford, Carbondale, Honesdale, Montrose, Towanda, Owego, and West; also to Monticello, Windsor, Binghamton, Ithaca, etc., etc. Agent on board. 13 ly

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P.M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P.M., and from Frederick to Baltimore at 8 A.M.

WASHINGTON BRANCH.

Daily trains at 9 A.M. and 5 P.M. and 12 at night from Baltimore and at 6 A.M. and 5½ P.M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1.60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. 31 ly

BALTIMORE AND SUSQUEHANNA
Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day any passenger train.

D. C. H. BORDLEY, Sup't.

Ticket Office, 63 North st.

31 ly

CENTRAL RAILROAD-FROM SAVANNAH
to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight.

Rates of Passage, \$8.00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods..... 13 cts. per cubic ft.

On brls. wet (except molasses and oil)..... \$1.50 per barrel.

On brls. dry (except lime).... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hhd. and pipes of liquor, not over 120 gallons..... \$5.00 per hhd.

On molasses and oil..... \$6.00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE, Gen'l. Sup't. Transportation.

40

NEW YORK & HARLEM RAILROAD
CO.—Summer Arrangement.

On and after Friday, May 1st, 1846, the cars will run as follows:

Leave City Hall for Yorkville, Harlem and Morrianna, at 7, 8, 9, 10 and 11 a. m., and at 1, 2, 3, 30, 4, 30, 5, 6, and 6 30 p. m.

Leave City Hall for Fordham and Williams' Bridge, at 7, 10 and 11 a. m., and at 2, 3, 30, 5, and 6 30 p. m.

Leave City Hall for Hunt's Bridge, Bronx, Tuckahoe, Hart's Corners and White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

Leave Harlem and Yorkville, at 7, 10, 8, 10, 9, 10, 11, 10 a. m., and at 12, 40, 2, 3, 10, 5, 10, 5, 30, 6, 10, and 7 p. m.

Leave Williams' Bridge and Fordham, at 6, 45, 7, 45, and 10, 45 a. m., and at 12, 15, 2, 45, 4, 45, and 5, 45 p. m.

Leave White Plains, at 7 and 10 a. m., and at 2 and 5 p. m.

The freight train will leave the City Hall at 1 o'clock, p. m., and leave White Plains at 1 o'clock in the morning.

On Sundays, the White Plains train will leave the City Hall at 7 a. m. and 5 30 p. m.; will leave White Plains at 7 a. m. and 6 p. m.

On Sundays, the Harlem and Williams' Bridge trains will be regulated according to the state of the weather.

18

RAILROAD IRON.—THE "MONTGOMERY"

Iron Company, Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to

MURDOCK, LEAVITT & CO., Agents.

Corner of Cedar and Greenwich Sts.

49 ly

LITTLE MIAMI RAILROAD.—1846.—
Summer Arrangement.

Two passenger trains daily.

On and after Tuesday, May 5th, until further notice, two passenger trains will be run—leaving Cincinnati daily (Sundays excepted) at 9 a. m. and 1 1/2 p. m. Returning, will leave Xenia at 5 o'clock 50 min. a. m., and 2 o'clock 40 min. p. m.

On Sundays, but one train will be run—leaving Cincinnati at 9, and Xenia at 5 50 min. a. m.

Both trains connect with Neil, Moore & Co.'s daily line of stages to Columbus, Zanesville, Wheeling, Cleveland, Sandusky City and Springfield.

Tickets may be procured at the depot on East Front street.

The company will not be responsible for baggage beyond fifty dollars in value, unless the same is returned to the conductor or agent, and freight paid at the rate of a passage for every \$500 in value above that amount.

W. H. CLEMENT,

Superintendent.

CALIGRAPHIC BLACK LEAD PENCIL
Manufactured by E. Wolff and Son, 23 Church Street, Spitalfields, London.

The Caligraphic Pencils have been invented by E. Wolff and Son, after the expenditure of much time and labor. They are the result of many experiments; and every effort that ingenuity and experience could suggest, has been made to insure the highest degree of excellence, and the profession may rely upon their being all that can be desired.

They are perfectly free from grit; and for richness of tone, depth of color, delicacy of tint, and evenness of texture, they are not to be equalled by the best Cumberland Lead that can be obtained at the present time, and are infinitely superior to every other description of Pencil now in use.

The Caligraphic Pencils will also recommend themselves to all who use the Black Lead Pencils as an instrument of professional importance or recreation, by their being little more than half the price of other pencils.

An allowance will be made on every groce purchased by Artists or Teachers.

May be had of all Artists, Colourmen, Stationers, Booksellers, etc.

A single pencil will be forwarded as a sample, upon the receipt of postage stamps to the amount.

Caution.—To prevent imposition, a highly finished and embossed protection wrapper, difficult of imitation, is put around each dozen of Pencils. Each Pencil will be stamped on both sides, "Caligraphic Black Lead, E. Wolff and Son, London."

The subscriber has on hand a full supply of Wolff and Sons' celebrated Creta Loevis, or Colored Drawing Chalks, also their pure Cumberland Lead and extra prepared Lead Pencils, and Mathematical Lead Pencils.

P. A. MESIER,

Stationer and Sole Agent,

No. 49 Wall Street.

N. B.—A complete assortment of Steven's Genuine Inks, Fluids, Imitating Wood stains, and Graining Colours at the Manufacturers' prices.

KEARNEY FIRE BRICK. F. W. BRINLEY

Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire,

Peter Cooper,

Murdoch, Leavitt & Co. } New York.

J. Triplett & Son, Richmond, Va.

J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. } Philadelphia, Pa.

Colwell & Co. }

J. M. L. & W. H. Scovill, Waterbury, Con.

N. E. Screw Co. } Providence, R. I.

Eagle Screw Co. }

William Parker, Supt. Bost. and Worc. R. R.

New Jersey Malleable Iron Co., Newark, N. J.

Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly.

35 ly

FLAT BAR, ENGLISH ROLLED, RAIL

road iron, 2 1/2 x 1—a large part suitable to relay. For sale by

C. J. F. BINNEY,

Commission Merchant, 1 City Wharf,

11 1m Boston, Mass.

TROY AND GREENBUSH RAILROAD.
Spring Arrangement. Trains will be run on

this Road as follows, until

further notice, Sundays excepted.

Leave Troy at 6 1/2 A.M. Leave Albany at 7 A.M.

" " 7 1/2 " " " 8 " "

" " 8 1/2 " " " 9 " "

" " 9 1/2 " " " 10 " "

" " 10 1/2 " " " 11 " "

" " 11 1/2 " " " 12 M.

" " 1 P.M. " " 1 1/2 P.M.

" " 2 " " " 2 1/2 " "

" " 3 " " " 3 1/2 " "

" " 4 " " " 4 1/2 " "

" " 5 " " " 5 1/2 " "

" " 5 1/2 " " " 6 " "

" " 6 1/2 " " " 7 " "

The 6 1/2 a.m. and 2 o'clock p.m. runs from

Troy, to Boston runs.

The 12 m. and 6 o'clock p.m. trains from Boston

runs.

Passengers from Albany will leave in the Boston Ferry Boat at the foot of Maiden Lane, which starts promptly at the time above advertised.

Passengers will be taken and left at the principal Hotels in River Street, in Troy, and at the Nail Works and Bath Ferry.

L. R. SARGENT,

Superintendent.

Troy, April 1st, 1846. 14 ly

MACHINE WORKS OF ROGERS,

Ketchum & Grosvenor, Patterson, N. J.

The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,

a45 Paterson, N. J., or 60 Wall street, N. York.

TO RAILROAD COMPANIES AND MANUFACTURERS

of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,

jr45 N. E. cor. 12th and Market sts., Philad., Pa.

THE SUBSCRIBERS, AGENTS FOR

the sale of

Codorus,

Glendon,

Spring Mill and } Pig Iron.

Valley,

Have now a supply, and respectfully solicit the patronage of persons engaged in the making of Machinery, for which purpose the above makes of Pig Iron are particularly adapted.

They are also sole Agents for Watson's celebrated Fire Bricks and prepared Kaolin or Fire Clay, orders for which are promptly supplied.

SAML. KIMBER, & CO.,

59 North Wharves,

Jan. 14, 1846. [1y4] Philadelphia, Pa.

RAILROAD IRON WANTED. WANTED, 50 tons of Light Flat Bar Railroad Iron. The advertisers would prefer second-hand iron, if not too much worn. Address Box 384 Philadelphia P. O.—Post paid. 84

Dublin and Kingston Railway.

An example to the Long Island, Harlem, and other railroads from the city of New York.

We give in this number the report of the Dublin and Kingston railway, as has been our custom for several years past. We consider this road, in its management, an admirable example to the railroads in the vicinity of this city, and for the purpose of inculcating this example we shall enter somewhat into detail.

The Dublin and Kingston railway is but six miles long—its cost up to last year, £349,736, or over one million and a half of dollars; this includes, however, the branch to Dalkey, of one mile and three-fourths, on the atmospheric system. Taking the whole line as eight miles, it will have cost over \$218,000 per mile; and yet this road has paid, as may be seen by the report, 10 per cent. dividend for the last year, having previously added to its contingent fund, one-eighth of the clear profits. It must be remembered, too, that the branch to Dalkey is attended with great expense from its mode of construction.

Let us now apply the example. The Brooklyn and Jamaica railroad was constructed for the purpose of accommodating the large amount of travel on the west end of Long Island—before its completion it was leased to the Long Island railroad company, who have extended their road through the island. There is probably no equal extent of line in the world more favorably situated than this—no large streams to cross—no heavy excavation or embankment, (with, perhaps, a single exception)—no short curves—perfectly straight lines of 10, 20 and 26 miles together—and for nearly the whole distance the kind of gravel best suited for a roadbed is the only subsoil. Here are conditions favorable for a railroad. The whole road (96 miles) and its machinery, has cost about as much as the Dublin, Kingston and Dalkey road, 7½ miles long—and has the Long Island railroad paid any dividend?

Let us now compare the management of the roads, and see if we can discover the cause of the extraordinary success of the one, and of the equally extraordinary want of success of the other.

The Dublin and Kingston runs trains every half hour during the day and evening, for the whole year, from each end of the road, the price is moderate, and to the laboring classes exceedingly cheap. They encourage residences along the line, and at its termination; subscribers—or commuters, as we call them—are also encouraged, and from this source one-seventh of the entire income was derived during the last year.

The Long Island runs through the "garden of N. York," as it has been called, sends but a morning and evening train, up and down per day, for about one-half of its length, and three through trains, up and down per week! In summer, the trains for the western part of the island are doubled, and go through every day. The through train, with the Boston passengers, had recently made stops along the line. The company, three years ago refused, as we are informed, to commute, while they had an advertisement standing in the papers, offering as an inducement for persons to reside upon the island, that they would commute on liberal terms. For the last year or two commutations have been refused entirely, on the ground that all railroad companies were adopting that policy—and at present the only mode of commutation is by the purchase of tickets at reduced prices—but in no case equal, in point of cheapness,

to the commutation upon other roads. More frequent trains have been refused upon the ground that the company was not bound to build up villages on the line of the road. True, they are not bound to "build up villages," but we have been simple enough to suppose that the managers of railroad companies were bound to promote the interest of their stockholders. Can we now doubt the true cause of the vast difference in the success of these roads?—The one accommodates the public, by frequent trains and low rates of fare, while the other seems not to make an effort to accommodate the people, and has, through its officers, as we have been told, repeatedly declared that if the public is not satisfied, it may go elsewhere, but has no right to complain. We insist, however, with all due deference to those gentlemen, that the people have a right to complain, and that it is the duty of the managers of the road to listen to their complaints, and if found just, they are bound to remove the cause—or the legislature should apply the remedy.

But the subject is too wide to enter into all its branches at present, we must now leave our readers with the Dublin and Kingston report, to which we add a very sensible article giving explanations in regard to "morning tickets"—and shall again refer to the subject at an early day, as we deem it of equal importance to the stockholders, and the masses who use railroads.

Dublin and Kingstown Railway Company, General Meeting.

The annual general meeting of proprietors was held on Saturday, in the board room of the company at Dublin, for the purpose of receiving the report and statement of accounts submitted at such meetings; George Roe, Esq., in the chair.

The secretary, T. F. Bergin, Esq., read, by the direction of the chairman, the minutes of the proceedings of the company at the last annual meeting, and the meeting held upon the 10th of March. He then read the following document:

"FOURTEENTH ANNUAL MEETING.—REPORT.

"Dublin, March 28, 1846.

"GENTLEMEN: We have the satisfaction of announcing a continued increase in the traffic of the line, as you will observe from the usual statistical statement, which is as follows:

Number of passengers booked at all the stations	£1,747,100
Last year	1,710,503
Increase	36,597
Estimated trips by subscribers	691,513
Last year	523,930
Increase	77,583
Gross number of passengers, subscribers included	2,348,613
Last year	2,234,433
Increase	114,180
Subscriptions received	£7,698 12 10
Last year	6,867 4 6
Increase	831 8 4
Gross income from all sources, exclusive of Dalkey	53,036 19 1
Last year	51,187 6 7
Increase	£1,849 12 6

Classification of passengers for the last seven years including subscribers.

Years ended last day of Feb.	1st class.	2d class.	3d class.	General total.
1840....	30,442...	550,414...	700,105...	1,280,761
1841....	35,585...	724,105...	759,393...	1,519,024
1842....	37,001...	840,116...	754,968...	1,632,085
1843....	68,156...	960,937...	729,788...	1,758,878
1844....	98,076...	1,049,243...	814,732...	1,962,051
1845....	104,109...	1,219,556...	910,768...	2,234,433
1846....	141,911...	1,293,524...	913,178...	2,348,613

	1843	1844	1845	1846
Trains despatched.	27,728	29,564	30,745	30,970
Miles travelled....	166,340	177,384	184,470	185,520
Average coaches per train.....	6-780	7-484	7-511	7-550
Av. passengers per train.....	63-220	66-366	72-676	75-830
Consumption of coke lbs.	22-880	24-107	24-220	26-740
pr train per mile.	pence.	pence.	pence.	pence.
Av. receipts per passenger per mile.	1-050	0-968	0-893	0-883
Gross receipts....	42,400l.	45,255l.	51,187l.	53,036l.

Third-class morning tickets, year ended 28th February, 1842.....	30,514
" " " 1843.....	37,310
" " " 1844.....	116,920
" " " 1845.....	174,802
" " " 1846.....	192,154

"The board have thought it desirable to place in your hands the preceeding comparative statistical table, now for the first time given, because it so clearly exemplifies the soundness of the policy which, with your sanction, has been followed in the management of this railway—namely, affording to the public the utmost amount of accommodation at very moderate charges.

"From the comparative table of passengers of the several classes, you will see that this increase has not been limited to any one denomination, although the ratio of increase has been very different. In first class passengers there has been very nearly a five-fold increase. The second class have much more than doubled during the last seven years, a manifest proof of the value of the subscription system as a means of creating and encouraging permanent residence along the line of railway.

"In the third class there has also been a large increase, not so regularly progressive as with the other classes, but still considerable. It is now more than five years since the board, anxious to contribute as much as possible to the benefit of the operative and humbler classes—who, in pursuit of their various avocations, constitute a great proportion of the third class passengers—introduced a special description of ticket, the practical effect of which is that, for a larger number of those persons, the third class fare is reduced to one-half of the ordinary rates. The prefixed table of 'morning tickets,' giving the number issued in each year since their first introduction, shows to what an extraordinary extent these tickets have effected their intended object.

"With respect to the statement of accounts now to be submitted, the board have very few observations to make, other than to congratulate you on the results of the past year. In one respect only do these accounts differ in principle from those of the preceding years. Our act of incorporation makes it obligatory that at each annual meeting you should, be-

fore declaring a dividend, set aside one-eighth part of the clear profits as a fund to answer contingencies, which fund is, by the act, placed exclusively at the disposal of the directors; and accordingly from it they have met a variety of extraneous expenses, which have occurred since the commencement of the undertaking. But few and inconsiderable causes of such outlay having arisen during the last two years, there was, on the 1st inst. a balance to credit of that fund amounting to £3,525 7s. 6d., to which you will this day have to add £2,530 7s. 3d., making the whole fund £6,055 14s. 9d. Were the law to continue as it now is, and in the present state of the works, this fund must soon accumulate to a very large and undesirable extent; and so strongly was this felt by the board, that in the bill now before parliament, for extending the line to Bray, a clause has been inserted for the abolition of this fund.

"For several years back, the great increase in your traffic called for a corresponding increase in engines and carriages, and the cost of these, all of which are constructed in your workshops, the board charged year by year to annual expenditure. The continuing increase in the traffic induced the board during the last year, to provide a large additional stock, including engines of greatly increased power, the expenditure on which has amounted to about £6,000. As this is an outlay the advantages of which will extend over several years, the board have thought it unreasonable that the whole should be a charge against the profits now at your disposal; and having the large amount already stated in the contingent fund, without any demands thereon, they have charged to that account an equitable proportion of the cost of the new stock. The amount so charged anticipates a part of the sum you are this day called on to appropriate, but the allocation being, as the board conceive, strictly within the powers conferred on them in respect to this fund, they feel no doubt of your approval of the course they have pursued.

"The only one of the items of charge which seems to require special notice, is that for maintenance of way, in which there is an increase of £1,275 1s. 9d. This consists, partly, of the expense of further protection from the sea, in the neighborhood of Seapoint; but essentially of the cost for timber and labor, including the charge for locomotive power in completing the laying down of new rails; the cost of the rails themselves was chiefly defrayed by the sale of the large stock of old ones which had accumulated since the commencement of the undertaking; and the board have now the satisfaction to report that the entire line and all the works, including engines and coaches, are in the most excellent condition.

"The Dalkey line has fully borne out the anticipations of the board, as to the regularity and efficiency of the atmospheric system of traction, as will be manifest from the fact that there were 71,708 trains despatched during the year, and but 13 trains lost; all of which, save one, were caused by slight derangements in the steam engine, and would

have been entirely avoided had there been two engines instead of one.

"The following are the results of the Dalkey line during the past year:

Trains despatched from both ends.....	21,807
Coaches moved.....	75,924
Passengers conveyed.....	340,742
Average coaches per train.....	3.497
" passengers ".....	11.090
" " per coach.....	3.160
Total cost of power and maintenance of way per train per mile.....	10.7 pence.

"The amount shows an apparent loss of £397 9s. 1d. from the Dalkey line; but it must be kept in mind that the board did not anticipate any direct profits from it; they looked to the return being obtained by increase of traffic over the original line, and in this their anticipations have been fully borne out. They are able to say with confidence that the construction of this extension to Dalkey immediately caused and has since maintained an addition of about £3,000 per annum to your revenue—thus fully realizing their expectations, when recommending for your adoption this interesting and important experiment.

"The special general meetings of the 2d of August last and of the 10th inst., have put you so fully in possession of everything connected with the late Kingstown and Bray project, the extension project now before parliament, and the agreement with the Waterford, Wicklow and Dublin company, that the board have not anything further to communicate on these subjects, except that under your resolution of the 10th inst., the articles of agreement have been executed; that both your extension bill and the bill of the Waterford, Wexford, Wicklow and Dublin company are now in committee in the house of lords, both having passed through the committee on standing orders, and the board have expectation that both will pass the legislature as speedily as the forms of parliament will admit of.

The profits from the last year's working have amounted to.....	£28,954 1 9
From that deduct—	
Payment to the board of works on account of loans.....	£6,000 0 0
Interest on debentures....	2,711 3 7
Leaving the net profits of the year....	8,711 3 7
From which this meeting is required to set aside one-eighth part as a fund to meet contingencies.....	20,242 18 2
	2,530 7 3
There remains.....	17,712 10 9
To which add a balance to credit of interest....	£196 18 11
Surplus from last year..	2,436 9 0
	2,633 7 11
There remains a present available balance of.....	£20,345 18 8

"From this sum the directors recommend that you shall now declare a dividend of 10 per cent, amounting to £20,000, which will leave a balance of £345 18s. 8d. to be carried to the next account."

Statement of Accounts for the year ending 28th February, 1846.

EXPENDITURE.	
Locomotive power—	£ s. d.
Salaries and wages, materials, engine men and firemen's wages, fuel, coke and wa-	

ter, station wages and sacks, coal for forge and shop use, lighting workshops [gas], oil, tallow, hemp, waste, and miscellaneous petty expenses.....	6,826 17 8
Carriage department—	
Salaries and wages, materials, coals for forge and shop use, lighting workshops [gas], paints, oils, varnishes, grease & miscellaneous petty expenses.....	3,101 9 6
Railway maintenance.....	3,386 17 1
Police and night watch, wages and clothing.....	1,103 12 3
Passenger traffic disbursement, including salaries of receiving clerks, wages of guards, ticket takers and door keepers, printing tickets and dockets, advertising and miscellaneous petty expenses.....	1,926 2 10
Stations and lodges, including salaries of superintendents and station keepers, lighting and repairs of lamps, wages of tablemen, and repairs and painting at the intermediate stations.....	2,761 10 9
Parcel traffic, including salaries, wages, books and printing.....	231 8 1
Office expenses, salaries of treasurer, clerk of company, resident engineer, bookkeeper, office clerks, stationery, postage and servants.....	1,769 17 8
Directors—allowance for year ending February 28, 1845.....	900 0 0
Rents.....	530 6 2
Taxes.....	860 15 6
Law expenses.....	140 3 5
Baths, for repairs.....	111 14 8
Insurance, charity and miscellaneous charges.....	224 12 8

DALKEY RAILWAY.

Steam engine and vacuum pump—coals £587 11 7; engine men and stoker's wages, £202 5 6; oil, tallow waste, £70 5 4; mechanics' wages for repairs £281 15 11; materials for repairs, £143 18 8; other expenses, £52 13 10.	1,439 10 10
Working main and piston—materials for repairs, £132 3 5; mechanics' wages, repairing, £16 15 4; valve man. £69 15s.....	208 13 9
Coaches, repairs and maintenance.....	191 3 6
Superintendents and station keepers.....	197 10 6
Ticket takers, guards, porters, police, door keepers and night watch.....	539 17 0
Other expenses, repairs of cuttings which slipped, of station shed damaged by storm, taxes, printing, advertising....	220 12 10
Profit and loss for balance transferred..	28,954 1 9
	£55,537 10 11

RECEIPTS.

Daily passenger traffic, £43,987 6 11: police soldiers and pilots [by contract.] £167 17; subscription traffic, £7,698 12 10.....	51,853 15 11
Parcel traffic.....	447 12 2
Post office contract for conveyance of mails.....	500 0 0
Baths, for rents received.....	132 0 0
Rents.....	93 8 0
Miscellaneous receipts, transfers, fees, etc.....	10 3 0
Dalkey traffic.....	2,500 11 10
	£55,537 10 11

PROFIT AND LOSS—EXPENDITURE.

Reserve fund, by order of a general meeting, March, 1845.....	2,370 8 11
Ninth dividend.....	18,000 0 0
Balance carried to the credit of this year's account.....	2,436 9 0
	£22,806 17 11
Commissioners of public works, viz: interest on loans from them, £3,209 8 2; in discharge of principal, £2,790 11 10.....	6,000 0 0
Interest on debenture loan.....	2,711 3 7
Balance carried to credit of Dublin and Kingstown railway account.....	22,876 6 1
	£31,587 9 8

RECEIPTS.	
By balance on 29th February, 1844 per last account	£22,806 17 11
	£22,806 17 11
Balance brought down	2,436 9 0
Interest general account, balance to credit	196 18 11
Income and expenditure account for balance transferred	28,944 1 9
	£31,587 9 3
<i>Dublin and Kingstown railway, general statement from the commencement of the undertaking to 28th February, 1846.</i>	

EXPENDITURE.		£	s.	d.
Total expenditure on works, to 28th February, 1845, including expenses in respect to debenture loan and of land accounts as per last statement	352,911	7	7	
Further expenditure this year, viz:—Kingstown station, £174; Black Rock station, £58 2 6; Westland row station, £223 0 11	455	3	5	
Total cost of railway to 28th February, 1846	353,366	11	0	
Deduct re-payments to board of works, viz:—from profits per last report	28,624	12	5	
This year	2,790	11	10	
	£31,415	4	3	
For sale of land	2,636	18	2	
	34,052	2	5	
	£319,314	8	7	
Balances on sundry accounts	2,759	14	8	
Government stock 3½ per cent	2,440	0	5	
Dalkey line	39,293	1	3	
Contingent fund	1,235	16	10	
Cash and bankers' balances, including deposit with court of chancery, on extension account	19,658	1	4	
Bills and misissued debentures	4,580	0	0	
	£387,981	3	1	

RECEIPTS.	
Joint stock capital, viz: calls on shares £200,000; loans from commissioners of public works, £112,200. Deduct repayments, [as per opposite side] £34,052 2 5—£208,147 17 7: debenture loan, £70,090	348,147 17 7
Debiture loan liquidation fund	4,000 0 0
Debiture loan expenses for premiums on debentures sold	29 4 6
Dividends unpaid	234 0 0
Balance on sundry accounts	2,900 5 0
Dublin and Kingstown extension account, as per abstract	9,793 9 11
Profit and loss for balance brought down	22,876 6 1
	£387,981 3 1

Dublin and Kingstown Railway—"Morning Tickets" and Railway Villages.—The reports of the directors of the Dublin and Kingstown company, for some years past, have been characterized by the interesting and valuable statistical and comparative information which they have contained. The report for the last year (to which we had the pleasure of calling the attention of our readers in our last number) contains, for the first time, a comparative statement of the number of "morning tickets" issued for the five previous years; but although the tickets so designated are thus introduced to our notice, the report does not give the public any information respecting them. As we were personally made acquainted with these arrangements a few years since, we hasten to lay be-

fore the public the interesting details connected with them.

Most of our readers are aware that the town of Kingston has greatly increased since the formation of the railway, and that a vast number of villa residences have sprung up in its vicinity. A large proportion of the artisans employed in the erection and completion of those buildings were resident in Dublin. The railway fare, out and home each day, was a serious deduction from their wages, or a serious tax on their employers; and the result was, that most of them were huddled together in wretched and comparatively expensive lodgings at Kingstown, and generally separated from their families in Dublin during the entire week, whereby both parties were exposed to peculiar temptations. This state of things being brought under the consideration of the directors of the railway, they authorized the issue of what they have termed "morning tickets" to third-class passengers, by which the parties who pass between Dublin and Kingstown by the first three trains in the morning—namely, at six, half-past six, and seven o'clock—are entitled to return free at any time they may please during the day.

Now, the result of this has been, not only that those artisans have been restored to their families, and their domestic happiness been thereby greatly increased, and temptations removed (whilst the trip out and home is to the men a source of healthful enjoyment and recreation), but another class of persons, who were not even thought of at the time the plan was adopted, have been furnished with the means of daily employment; and many a humble hearth has been made cheerful through the daily profits derived by the itinerant dealer in fruit, eggs, vegetables, fish, etc., who go in large numbers to the early markets in Dublin, and return to various places along the line of the railway with their daily stock in trade. We were glad to find that no inquiry is ever made as to the weight or bulk of those articles; anything which they can jointly or severally carry to the railway truck is cheerfully taken without any charge. All this manifestly tends to facilitate building and other similar operations at Kingstown, and to increase the comforts and prosperity of the inhabitants, and particularly of the poorer classes; and a reaction to some small extent may be expected from those causes on the income of the company. But the direct return to the company from these tickets has been so large, and the increase so rapid, that we will reprint the numbers:

Third-class morning tickets, year ended 28th February, 1842	30,514
" " " 1843	37,310
" " " 1844	116,920
" " " 1845	174,802
" " " 1846	192,154

Or, in other words, the company have received in round numbers £4,800 from these tickets; and we have little doubt that at least £3,000 of that sum is additional revenue and clear profit to the company from this source.

We are now most happy to have it in our power to inform those liberal and enlightened

gentlemen to whom the public have thus been so largely indebted, that their excellent example is likely to be followed here, and with results of such a character, that we do not hesitate to class them amongst the most important connected with the introduction of the railway system.

Many intelligent and benevolent persons lately turned their attention to the necessity of providing increase of house accommodation for the lower classes in London; and among others, Mr. W. B. Moffatt, the well known architect of Spring gardens, has considered the subject. Having heard of the success which has attended the issue of "morning tickets" on the Dublin and Kingstown railway, it occurred to him that an extension and modification of this plan might be adopted with the utmost advantage; and meeting with a kindred spirit in Mr. W. A. Wilkinson, the chairman of the Croydon railway, a plan has been adopted, and a company formed, for the purpose of taking a considerable extent of ground near one of the stations of the Croydon railway, and building thereon a large village. But let Mr. Moffatt speak for himself:

"Each village should contain about 5,000 cottage residences, covering 500 acres of land, and taking the probable average of the inhabitants of each cottage at seven in number, it will give to each village 35,000 inhabitants, making a total population, supposing ten villages to be in the course of time erected, of 350,000 removed from the dens of the metropolis.

"It is contemplated to erect only ten cottages to an acre; which, built in pairs, will give to each residence a good garden, will secure perfect ventilation, and incite the occupant to industry, regularity and neatness.

"The method adopted in laying out the new villages would combine everything to render them attractive and desirable for the class for which they are intended—comprising churches and chapels, with cemeteries attached to each, forming picturesque and open spaces, so disposed as to give free circulation to the town.

"Mechanics' institutions, with lectures, library, and reading rooms for instruction and amusement.

"Gymnasium, with grounds for recreation, exercise, by cricket, etc., etc.

"Public baths and washing establishments, to induce habits of cleanliness and promote health.

"Gas and water companies, and other public establishments, requisite to secure a supply to the inhabitants of all the necessities of life at the cheapest possible rate, and of a genuine quality; thus rendering them, in a great measure, independent of supplies which they now obtain at high market prices.

"As the benefit of the working classes will be the primary feature of this society, every member who has the means of doing so will have the opportunity of becoming a participator, by dividing the necessary capital into shares of £20 each, and the small sum of 1s. per week, after the necessary deposit, will be payable in respect of each share. This will enable each shareholder of 4, 6 or

8 shares, according to his class, to become (in exchange for his shares) the owner of his cottage in about six or seven years, provided he continues the payments during that period; and thus, the habit of saving once being induced, it is hoped it will continue during the period of his actual labor, till he has realized a small competency to assist him in his declining years.

"The advantages which would necessarily accrue to the working classes from exchanging a loathsome, unhealthy, and highly-rented city lodging, for a well built, cheap, airy, and cheerful country residence, combining every motive to order, sobriety, and industry, are sufficiently apparent; whilst to the capitalist this scheme must recommend itself, as securing an ample return for any funds embarked in it; and to the philanthropist, as the most effectual means of alleviating the immense amount of human misery consequent on the present overcrowded state of the metropolis."

This statement and appeal have been nobly responded to by the Croydon company. Acting on the recommendation of their chairman, they have, with an enlightened liberality which does them infinite credit, agreed to convey, upon certain conditions, the heads of families by their railway to and from London FOR ONE SHILLING PER WEEK EACH! Small as this sum may appear, it is considerably greater than the charge for goods, and is free from the peculiar expenses and liabilities which attend their transmission, and the result, we have no doubt, will be equally profitable as the design is highly creditable to the company.

We commend these facts to the serious attention of the Royal Commission, lately appointed, on the recommendation of parliament, to inquire into the railways which propose having their termini within the metropolis. It is impossible that the lines so proposed can be constructed without destroying an immense amount of house accommodation; and as the parties promoting them will, for their own sakes, select the poorest districts, as being the cheapest to pass through, a vast amount of suffering must inevitably result, unless some means be provided to secure an increase of shelter at least equivalent to that which must be destroyed.

Mr. Moffat's suggestion appears to us to supply, not merely an admirable, but we believe the only, remedy. There is no room in the metropolis for the increased, or rather the substituted, accommodation required, and which ought, if possible, to be provided before the wretched inmates are turned into the streets; and we are of opinion that it would be only a reasonable stipulation to make with the companies who seek for those powers which will destroy such a mass of building, and disturb such a number of families, that they should offer the only compensation in their power by following the example of the Kingstown and the Croydon companies.

If these suggestions should be generally adopted, are we wrong in classing their effects among the important results of the railway system? Who, under such circum-

stances, will assign geographical limits to the metropolis itself? Who can venture to predict what will be the effect of pure air, perfect drainage, well ventilated apartments, and daily wholesome recreation and exercise, on the health and duration of life of the most useful class of our population? Under such circumstances, the introduction of railways into the very centre of the metropolis will be welcomed by all classes, and what is more, we unhesitatingly believe that the profits of the companies will be greatly increased.

We cannot conclude without congratulating the directors of the Dublin and Kingstown railway, not only on the pecuniary results which have accrued to their own interesting little work, but also on the prospects which we have endeavored to sketch as the fruits of their example. Public attention is now much turned towards them; and all good men unite with us in the wish that their prosperity may increase with the continuance of such exertions, and that their excellent example may be generally followed.

Tabular Sheet Iron Railway Bridge across the Straits of Menai.

Our readers are probably aware of the startling proposition of Mr. Stephenson, to cross the Straits of Menai by an iron bridge in the form of a beam, without arch or suspending chains, through which the trains are to pass—thus giving to the famous locality two of the most remarkable monuments of human skill and ingenuity. The idea of a hollow iron beam laid across an opening of 450 feet, and perfectly level from abutment to abutment, is so novel, and, withal, so unpromising, that the announcement seemed to be a quiz upon modern credulity. Nevertheless, the plan is a serious one, and by the following report, our readers will perceive, by no means chimerical. The reputation of Mr. Hodgkinson is alone a guarantee for the accuracy of the experiments which are so remarkable and may prove so valuable to engineering science, that we feel assured the report will be read with pleasure.

Mr. Fairbairn's Report.—Abstract or short Summary of Results from Experiments relative to the proposed Bridge across the Menai Straits, addressed to Robert Stephenson, Esq., by W. Fairbairn.

After a series of experiments, undertaken at your request, for ascertaining the strongest form of a sheet iron tubular bridge across the Menai straits, I have been induced, in order to meet the requirements for such a structure, and to insure safety in the construction, to call in the aid and assistance of my friend Mr. Hodgkinson. The flexible nature of the material, and the difficulties which presented themselves in retaining the lighter description of tubes in shape, gave exceedingly anomalous results; and having no formula on which dependence could be placed for the reduction of the experiments, I deemed it necessary, in a subject of such importance, to secure the co-operation of the first authority, in order to give confidence to the Chester and Holyhead railway company, with whom you are connected, and the public generally.

It will be observed, that the first class of experiments are upon cylindrical tubes; the

second upon those of the elliptical form; and the last upon the rectangular kind. Tubes of each sort have been carefully tested, and the results recorded in the order in which they were made; and moreover, each specimen had direct reference to the intended bridge both as regards the length and thickness as also the depth and width. In the first class of experiments, which are those of the cylindrical form, the results are as follows:

No. of Experiments.	Distance between supports.	Diameter in inches.	Thickness of plate in inches.	Ultimate deflection in inches.	Breaking weight in lbs.	REMARKS.
1	17 0	12 18	.0408	.39	3,040	Crushed top.
2	17 0	12 00	.0370	.65	2,704	Ditto.
3	15 7 1/2	12 40	.1310	1.29	11,440	Crushed at the bottom.
4	23 5	18 26	.0582	.56	6,400	Ditto.
5	23 5	17 68	.0631	.74	6,400	Ditto.
6	23 5	18 18	.1190	1.19	14,240	Ditto.
7	24 30	21 00	.0954	.63	9,760	Ditto.
8	24 30	24 30	.1301	.95	14,240	Ditto.
9	24 30	24 30	.0954	.74	10,880	Ditto.

With the exception of the first two, nearly the whole of the tubes were ruptured by tearing assunder at the bottom through the line of the rivets.

Finding the cylindrical form comparatively weak, the next experiments were upon tubes of the rectangular shape, which gave much better results. For the present it may, however, be more convenient to take the elliptical kind, as being the nearest approximation, as regards both form and strength, to the cylinders recorded above.

No. of experiments.	Distance between supports.	Diameters transverse & conjugate, in inches.	Thickness of plates in inches.	Ultimate deflection in inches.	Breaking weight in lbs.	REMARKS.
10	17 0	14 63	.0416	.62	2,100	Crushed on top.
11	17 0	9 25	.0416	.62	1,707 1/2	By compression.
12	17 0	21 66	.1320	1.36	17,076	By extension.
13	17 0	13 50	.1320	1.36	17,076	By extension.
14	17 0	21 25	.0888	.45	7,270	By compression.
15	15 00	14 12	.0775	.95	6,867	By compression.
16	15 00	14 12	.0775	.95	6,867	By compression.
17	15 00	14 12	.0775	.95	6,867	By compression.
18	15 00	14 12	.0775	.95	6,867	By compression.
19	15 00	14 12	.0775	.95	6,867	By compression.
20	15 00	14 12	.0775	.95	6,867	By compression.
21	15 00	14 12	.0775	.95	6,867	By compression.
22	15 00	14 12	.0775	.95	6,867	By compression.
23	15 00	14 12	.0775	.95	6,867	By compression.
24	15 00	14 12	.0775	.95	6,867	By compression.

It will be observed that the whole of these experiments indicated weakness on the top side of the tube, which in almost every case was greatly distorted by the force of com-

I left the line at Bath, I missed the book.—At my request inquiries were made at the London station, but no tidings were heard of it. I gave it up for lost, when lo! it came to hand after the lapse of a week. Not finding it at London, the company instituted inquiries for it at Bristol, not merely among their own servants, but of the hackney coachmen, one of whom having found it in his coach, restored it. I think this was a most civil act; and in justice to all other railways, I must say I have always received the most polite attention.

A COUNTRY CURATE.

Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Saturday, May 23, 1846.

Hudson Street Railroad.

Railroads from the City of New York.

We have before us a report from the majority of the committee to whom was referred the application of Messrs. Bloomfield and Bloodgood, for permission to construct a railway through Hudson street, and on one of the western avenues. The substance of this report is briefly as follows:

The committee state that the petitions in favor of the railway embrace the representations of a vast majority of the property interested. The opinion is advanced that a well regulated city railroad, so far from creating an obstruction—actually relieves the travel, and removes impediment—that “a good railway is but an improved form of pavement.”—The experience of the Harlem railroad is given to show that stages and omnibuses, have increased, and not diminished, along the line of that road and the parallel avenues. The advantages of a more prompt and definite control over an incorporated company, than over others, is urged as a benefit.—The wants of that portion of our city are well set forth, and it is suggested that much profit to the finances of the corporation will result from an increased investment of capital on our own island, whose citizens should not be compelled for want of conveniences of transit, to remove to Long Island, New Jersey, etc.

The example of other cities allowing railroads to pass through their streets, is quoted to show that great benefits have resulted from this policy—which, particularly to the laboring classes, affords the means of reaching the heart of the city, from the less costly residences of the vicinity, with both speed and economy.

In the last place, the necessity for a communication with the Erie railroad, is very distinctly laid down as a serious want—which, if not speedily

supplied, may lead to very serious diversions from our island of traffic properly belonging to it. A provision is recommended, granting the privilege of connection to roads from the north.

The document is a plain and fair exposition of this, to New York, all important subject. But, alas, New York has so long prided herself upon her natural advantages, that we begin to think of the fable of the hare and tortoise, as quite to the point. No city in the union, at all connected with the great net work of railways, has felt so little of the benefit in her immediate vicinity. Within the sound of the hum of New York city, we have stood in the undisturbed primeval forest. Tens of thousands of acres of land, within a few miles of the largest city on this continent, lie as unimproved as if in the midst of the wilderness. New York island itself shows an amount of unproductive property scarcely credible to a stranger. Why is this so? New York has, with the exception of the Harlem, no railroad communication with more than one or two places in its vicinity, and no communication at all, which, by its economy, speed, certainty and comfort, can tempt those in moderate circumstances to reside for the whole year within a few miles of New York or Brooklyn. High rents and heavy taxes have not yet driven any large part of the population to risk the disadvantages of a residence in the vicinity.

It is truly wonderful that the force of a few simple propositions has not yet been felt by New York capitalists and railroad directors. Some of these propositions are the following: By far the largest number of the residents of a large city are either poor, or in but moderate circumstances. To accommodate the public, then, is to accommodate those who are not rich. Hence fares must be low. But the number to be benefitted is very great—the profits will then be great.

These remarks will of course apply equally to all the lines of railroad from the city of New York—and to them will the example of the Dublin and Kingstown railway be worthy of application. A reference to our present number will show that a road of but six miles in length, costing \$1,500,000, pays a dividend of 10 per cent., by its sound policy of encouraging residence along the line—frequent trains—commutations, and low fares even for the poorest.

We shall not fail to return to this subject.

Long Island Railroad.

“The Long Island railroad company, under the judicious policy of its new board of directors, has already carried out some important measures which will conduce much to the future prosperity of that company. They have made a sale of their steamboats Worcester and Cleopatra for \$130,000, cash, retaining one boat (the New Haven) for the ferry at Greenport—thus entirely separating for the future the road from the expense and contingency of steamboats. The company have also made important changes in the economy of the road, and have further useful changes in progress.”

The above paragraph is copied from the National Intelligencer of the 9th inst. We give it a place in the Journal because we know, full well, that there is abundant room for improvement, and are pleased to learn the fact, that there is a prospect of the introduction of reform—though we do not always find Washington news more accurate than that which reaches us through other sources. We have often urged upon the managers of this road the importance of changing their system of management.—Their true policy is to encourage the business of Long Island—conciliate the good will of the people of the island—accommodate their business—encourage them to use the road—and thus promote the in-

terest of all parties, but most especially that of the stockholders—make the business of the island the main, and the Boston business the incidental business of the road. It is idle to undertake to compete with Boston for, or rather to control the travel to Boston during the summer, though it may always have a fair share of it at paying prices—and accommodate it, too, without interfering with the local business, which, with a little fostering care, or by a proper system of management, may be made to yield in a few years ten per cent. upon the cost of the road, as we will endeavor to show by illustration, by showing what others have done under less favorable circumstances.

We beg pardon for saying so much upon so small a paragraph, even though it relates to a subject of great importance. We only designed when we commenced, to express our gratification at hearing that the company have resolved to introduce a more correct system of management, or—to use the language of the National Intelligencer—a more “judicious policy”; because we are fully convinced that only by such a course can the shareholders, or the people of the island, be benefitted by the railroad, and that, by a proper course, we are quite sure that all may be benefitted, and the property along the line greatly enhanced. Indeed, a right system would make a garden thickly studded with cottages along the entire line of the road, within a few, say twenty, years—when a double track would scarcely suffice to carry the people and business of Long Island.

By recent arrivals our files of English railroad papers are brought down to a late date. We find these papers full of notices of relief, proposed for the sad condition into which thousands have been drawn by the locking up of their advance money—more particularly in the case of those roads which failed to procure the act of parliament. Complaints signed “unfortunate shareholders” are not uncommon.—We judge, however, from numerous indications, that the winding up of all improper or ill-advised lines will be expedited by stockholders and by parliament; while the payment of interest on funds advanced for lines to go into operation, is looked to by many as a measure of relief.

The gauge question has not ceased to be noticed.

The Railway Record quotes, with approbation, an article from this journal on the subject of low fares, giving us credit for the course we have pursued.—The Record notices the similarity of the question of canal vs. railway in this country and in France—referring to the restriction upon the lines of railway, parallel to the canal in our state.

Lebanon Springs and Bennington Railroad.

We understand that it is in contemplation to construct a railroad from the Western railroad at, or near, the point where it connects with the Berkshire and Housatonic railroads—and where, it is supposed, the Harlem road will connect when completed—through Lebanon, Stephentown, Berlin, Petersburg, and Hoosick, to Bennington, Vermont; there to connect with the Western Vermont road to Rutland and Burlington. This route would be, if the Harlem road should be continued through to that point, a more direct one between New York and Burlington than by the way of Pittsfield and North Adams.—Should the Housatonic company, however, extend their road up that valley to Pittsfield—as we have supposed they would—and the Harlem company form a junction with the Housatonic at some favorable point, as it is possible they may, then there would be very little difference in the distance; and the lines would be very nearly equal in grades and

curves. Should these latter possibilities become realities, the latter route—by the way of Pittsfield—would have the advantage of the other in the important fact that it has the co-operation of those interested in that important work, the Western railroad, and of the Boston people to some extent, though probably not as much as intimated by the writer of an excellent communication upon the subject of the route, indicated by the heading of this notice, from which we make the annexed extracts.

The subject is one deserving the attention of the citizens of New York, and especially of the Harlem railroad company, and therefore we give it a place in the Journal, and trust it will be read by our citizens.

"That the Northern railroad will be built is now no longer chimerical, and that that road will form a junction with the Boston road is certain. Can there be a man in New York who cannot guess the result? Trade will evidently be diverted to Boston, unless New York wake up to her interest and anticipate the evil by defensive action. But how can this be done, when the Bostonians are congratulating themselves with the idea that they have secured the only avenue which leads through the mountains of Vermont into Canada? But I would say to the Boston people, that there is one avenue with which they were unacquainted,—an avenue which, if taken possession of by New York, would materially alter the result now set down as certain.

"You are, doubtless, aware that the road now built from Bridgeport (Ct.) to West Stockbridge (Mass.) is to be relaid with the T rail, and will shortly become one of the best roads in the country. The Harlem road will doubtless form a junction with this road at Danbury, or push an independent road through the same valley already occupied by the Housatonic company. This is—destined to be the great thoroughfare of the northern travel, by which to reach New York during the close of the Hudson river, provided a link which is now deficient in the chain be filled, by extending the Housatonic road through the Lebanon valley, Stephentown, Berlin, Petersburg and Hoosick, and crossing into the state of Vermont at Pownal or Bennington, and there tapping the great Northern railroad from Montreal, and leading the travel to New York by a road of easy grade, through a beautiful and densely populated country.

"If this Northern railroad is carried up the valley of the Hoosick river, via North Adams, and forms a junction with the Boston road at Pittsfield or Dalton, it is in vain for the New Yorkers to suppose that the travel will be diverted from Boston to their place, especially in the winter. It is true, passengers can come down to Pittsfield during the time navigation is open in the Hudson, and can take the cars for Albany if they choose; but "navigation" on the Boston railroad is always open, and the people of Vermont can get their goods in the month of February as easily as any other month in the year. The Boston people are straining every nerve to divert trade to their city. The products of the places I have named can now find a better market at Boston than they can find in New York, or will when this road is finished. And when we consider the inducements held out by the Boston merchants, together with the fact that the Boston capitalists are building the North Adams road, a person must be blind not to see that Boston is working for an object beyond the dividends upon their capital invested in the railroad. It is also true that the Housatonic railroad now forms a junction with the Boston road, by means of the Hudson and Berkshire railroad at the

state line, and you might say that passengers coming down the North Adams road can take the cars for the state line, and thus find their way to New York by this route. If the New Yorkers owned the stock in the Boston and Albany and North Adams railroads, they might possibly so manage matters as to direct the travel as the directors chose. But if you know anything about railroad corporations, you have learned the fact that a great deal depends upon management. The question is not where will people find the best market? but who owns the stock? and for whose benefit was the road built?

The distance from the state line (where the Housatonic can form a junction with the Boston road) by way of Pittsfield, North Adams, Williamstown, to Bennington, Vt., will be forty-eight and one-half miles. By this route, passengers will be subjected to the inconvenience of a shift of baggage, etc., besides a delay, if the Boston train should not think fit to run in connection with the Housatonic. Now, the proposed route (which might be a continuation of the Housatonic, and, therefore, independent) might be built from the state line or Edward's depot in Canaan, N. Y., to Bennington, Vt., in less than thirty-six miles—being a saving of more than twelve miles in the distance, and getting almost a straight road, with a grade of not more than forty feet to the mile. From the state line to New Lebanon, the proposed road has already been surveyed by Mr. Talcott, the engineer who surveyed the Boston road from Albany to the state line. (This will be the worst part of the route from Stockbridge to Bennington,) yet he found no difficulty in getting a survey of a road which would be of a grade of forty feet to the mile, and nearly a direct line. From Lebanon Springs north, about five miles the grade would be less. Here you would find the summit, where the streams make off both ways—the one falling into the Kinderhook creek and finding their way to the Hudson river at Stuyvesant, the others running north until they find the Hoosick river in the north part of Petersburg; here the grade would be almost level, through a rich country, with very little cutting or filling; from thence it would be feasible to take a gap in the mountain, at a place called the "Kitchen," passing into the state of Vermont and intersecting the Northern railroad at the foot of Pownal mountain. Should a junction be formed at this place, it would shorten the distance; but I should judge it feasible to connect with the Northern road at Bennington should this route be decided upon. The advantages gained by this road would be: 1st, an independent road from New York to Bennington; 2d, a route nearly straight, with an easy grade; 3d, a shorter route by at least twelve miles; and, 4th, securing to New York the trade and travel of western Vermont and Canada, together with that of the eastern towns of Washington and Rensselaer counties, and part of the northern and eastern towns of Columbia.

"A shorter route might be made by passing from Stephentown through the Hancock valley, and tapping the Northern road at Williamstown, Mass.—But it is uncertain whether a charter could be obtained from the legislature of Massachusetts for this last proposition; besides this route would not pass through so dense a population. Or the road might be extended through Petersburg, Hoosick, White Creek, Salem, etc., as the valley continues through to Castleton, I understand, and how much farther I know not.

"But these suggestions are thrown out by one totally ignorant of railroad affairs. That they are the words of wisdom, it remains for the people of New

York city to judge; yet I hope that some one will take hold of the subject, competent to do it justice. That the proposed road would be a uniting link between New York and Canada, those who will examine the map will readily discover. That there is no difficulty in the grade, I know beyond a doubt, and I hope a careful investigation may be made into the project by the capitalists and business men of your city, and that, too, immediately, as further procrastination may force trade in another direction, and place the remedy forever out of your reach.

"Respectfully, etc.,

"A PERSON INTERESTED."

Preservation of Timber—Report on Boucherie's Process.

We are again indebted to our valuable correspondent, Major Poussin, for a very interesting letter. It will be seen from this, that the plan of Boucherie has proved successful under very severe trials, as, indeed, might have been predicted.

The most important point in the whole history of experiments on the preservation of timber, and the one, too, which has been most generally overlooked, is this—the most porous species of wood—and the sap of the hard kinds may, by almost every preservative process which has any pretensions to utility, be rendered more durable than the hardest and best kinds of timber in the natural state. We are pleased to find that this important fact is properly presented in the letter of Major Poussin.

We may remind our readers, that the plan of Boucherie consists in impregnating the tree, either when recently cut or while only partially separated from the stock, by the natural flow of the sap through the wood—the absorptive force being sufficient to carry the preservative liquid to all parts through which the natural juices flow. The liquid preferred for this purpose, is that called pyrolignite iron—being the impure acetic acid obtained by distillation of wood, saturated with oxide of iron.

Nothing could be more easy than a trial of this method on a large scale, particularly on such railroads as pass through a district abounding in timber. The branches, chips, etc., of the wood, heated in suitable iron cylinders, would furnish the acid—fragments of iron, nearly worthless for other purposes, would serve to saturate the liquid. In this way the timber growing on the site of the road might be cut down and seasoned before it would be needed in the construction. The experiment is at least worth trying, and valuable results would follow.

We give the letter of Maj. Poussin below:

PARIS, 32, rue Richer.
18th April, 1846.

D. K. MINOR, Esq.

Dear sir:—I herein transmit you the result of a special examination into the merit of M. Boucherie's plan of preserving wood, which I hope you will think interesting to all your readers, as tending to prove its usefulness in the construction of railways.

On the 23d of March last, a special commission, composed of scientific and practical gentlemen, all engaged in railroad constructing, and some civil officers of the government, attended, at the request of Doctor Boucherie, the removing of sleepers which had been buried in the forest of Compiagne, and covered with 20 centimetres (8 inches) of earth, on the 23d September, 1843.

The commission has unanimously recognized that all the sleepers prepared according to M. Boucherie's plan have been preserved from the rot which has attacked the sleepers of the same kind laid in a natural state—the water having completely respected the first.

Thus the sleepers prepared agreeably to M. Boucherie's plan have retained their bark, and were perfectly sound at the surface, as well as inside, notwithstanding their having been laying on the ground in the open air during nearly one year previous to their being laid under ground—a condition most unfavorable to the preservation of timber.

As to the oak sleepers, which cannot be penetrated but to a small depth (through the joint called *aubier*—"sap"), the Boucherie preparation gives to this *aubier* a consistence equal to that of the heart, and the means of lasting longer, without doubt, than the heart itself. And, as a piece of oak of the same sleeper of which the *aubier* had been penetrated, had remained on the ground since the laying under ground of the proposed sleeper, it has been proved that the *aubier* of this piece was in the most complete state of decomposition, and that it yielded to the least effort, tumbling into fragments without any resistance, when the *aubier* of the sleeper prepared had become as hard as the heart itself.

In fine, a last observation was made on a sleeper of oak in a natural state, and split in two by a saw cut before being placed in the earth; the heart of this sleeper had suffered a notable alteration—for in scraping it a little with a knife, from three to four millimetres could easily be taken off. This fact when compared with the absolute resistance offered by the surfaces of the sleepers of beach and chestnut, prepared and likewise sawed previous to being laid under ground, demonstrate all the preserving properties of the Boucherie plan. Thus, the species of timber which in the natural state are more quickly deteriorated, remained perfectly sound when treated by this process; whereas the oak, which in the natural state resists for a longer time the variations of the weather, has suffered in the same condition important modifications.

We must conclude from these facts, that, without venturing to state what would be the real duration of timber under the Boucherie plan, it will be greater than that of oak, the heart of which cannot be penetrated by the substance employed.

Railway shares have again suffered a considerable depreciation in our market, as well as in that of England. The fact is, that our French public is literally more stuffed up with railroad shares (most of which are speculative or unproductive for a time to come) than they can well bear, and add to this that the English throw on our market most of the shares that they have subscribed in France when those sell at a good advance price; for it is customary with the Parisian public to purchase shares only when they command a good premium—seldom appreciating shares sold at par.

The great Northern or Belgium road will not be opened before the middle of May coming. A great traffic is expected on this railroad, as it will open a direct line of communication between Paris, London, Brussels, Hungary, Berlin and Vienna—it must necessarily be the most productive road.

Most faithfully yours,

J. T. POUSSIN.

Pittsburg and Connellsville Railroad Charter.

The Pittsburg Gazette of 5th inst., says:

"The following synopsis of the charter of the Pittsburg and Connellsville railroad, has been carefully prepared and collated by our senator, Hon. GEORGE DARSIE, for the purpose of giving information to all who may feel disposed to embark in an enterprize of so much importance to the interests of this city

and western Pennsylvania, with the request that the city papers and other journals friendly to the object will give it an insertion.

"W. ROBINSON, Jr.

"Chairman for Commissioners.

"E. D. GAZZAM, Secretary.

"Synopsis of the Charter of the Pittsburg and Connellsville Railroad Company.

"ACT OF THE THIRD APRIL, 1837.

"The first section appoints commissioners, and authorizes any of them to open books after twenty days notice in two papers printed in the city of Pittsburg, and two in the counties of Westmoreland and Fayette, the books to be kept open for at least six hours in every juridical day, for the space of three days, or until six thousand shares shall have been subscribed. Under the act of 1843 the shares are reduced to fifty dollars, and the amount to be paid in at the time of subscription, to two dollars and fifty cents on each share.—The commissioners are authorized at their discretion, if six thousand shares are not subscribed within the three days, to adjourn from time to time, and transfer the books elsewhere, until the whole number of shares shall be subscribed, such notice of the adjournment or transfer to be given as the occasion may seem to them to require.

"The second section, as amended by the act of 1843, prescribes that when two thousand shares or more shall have been subscribed, and two dollars and fifty cents on each share is paid in, the commissioners, or any ten of them, shall certify the same, under oath or affirmation, to the governor, who is thereupon required to issue letters patent, conferring upon the company the ordinary franchises.

"The third section provides for the election of twelve directors; and as amended by the act of 1846, allows a vote, for every share of stock held, at all general meetings, or elections of the company. Proxy voting is allowed, but all proxies are required to be dated within sixty days of the election.

"The fourth section authorizes the commissioners, or any ten of them, after the letters patent shall have been received, to appoint the time and place, and give at least fifteen days notice of the first election of directors, and appoints the first Monday of December annually thereafter as the period for said election.

"The fifth section defines the duties of the directors, and authorizes them to appoint a secretary, treasurer, engineers and other officers.

"The sixth section authorizes the issuing of certificates of stock and their transfer.

"The seventh section requires the directors to make a report to the stockholders at their annual meeting; special meetings of the stockholders may be called by any three directors, or by stockholders holding one-fourth in amount of the capital stock, but no business can be done at any special meeting unless a majority of the stockholders shall attend, in person or by proxy.

"The eighth section authorizes the company to locate and construct a railroad, of one or more tracks, from the city of Pittsburg,

by the course of the Monongahela and Youghiogheny rivers, to some suitable point at or near Connellsville, and to join or intersect at that point, or any other practicable point, any other improvement, either by canal or railroad, and to make, construct and erect, such warehouses, toll houses, carriages, cars, and all other works and appendages necessary for the convenience of said company, in the use of the said railroad.—The rights and privileges under the section have been extended by the revival at the last session, of the seventh section of the act of 1843, which is in the following words, viz: That said company shall have full power and discretion to select any route from the city of Pittsburg to Turtle creek, which may be deemed most eligible and advantageous, and may extend said railroad beyond Connellsville to Smithfield, or any other point on the waters of Youghiogheny, and within the limits of this commonwealth.

"The ninth and tenth sections authorize the entering upon lands and provides for apportionment of damages.

"The eleventh and twelfth sections guard against the obstruction of highways, and provides for the construction of causeways when the road passes through private property.

"The thirteenth section makes the road a public highway, and prescribes a maximum rate of tolls. The power reserved to the legislature of reducing and regulating the tolls was repealed by the act of last session.

"The fourteenth section authorizes the company to place cars upon the road, and charge tolls and freight not exceeding double the rates of the previous section.

"The fifteenth section authorizes the declaration of dividends.

"The sixteenth section authorizes an increase of the capital to an amount sufficient to accomplish the several objects of the charter. A proviso to this section, limiting the capital to one million of dollars, was repealed by the act of the last session.

"The seventeenth section provides, that if the road shall not be commenced within five years, or if after its completion it shall be suffered to go to decay and become impassable for a period of two years, the charter shall be null and void. The time for commencing was extended for another period of five years, by the act of the 18th of April, 1843; consequently there is yet nearly two years to run—the time for completion is indefinite.

"The nineteenth section requires an annual statement to be made to the legislature, and provides for a tax of 8 per cent. upon all dividends exceeding 6 per cent. per annum.

"The twentieth section reserves to the legislature the right to purchase the road at the end of thirty years, by paying the company a sum of money, which together with the tolls received, shall be equal to the cost and expenses of said railroad, with an interest of 8 per cent. per annum thereon. It also reserves the right of repeal for the misuse or abuse of the corporate privileges.

"The sixth section—of the act of 1843, authorizes the counties of Allegheny, Westmoreland, Fayette and Somerset, and any

THE WESTERN AND ATLANTIC
Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tusculumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.

Atlanta, Georgia, April 16th, 1846. 17

RAILROAD IRON—500 TONST RAILS
R—60 lbs. to the yard. Depth of rail, 3½ inches; width of base 4 inches; width of top, 2½ inches; length of bars 15 and 17½ feet. Apply to,

A Steam Pile Driver—built by "Dunham & Co."—in complete order; has never been used, and for sale a bargain. Cost originally \$5,000. Also 12 Railway Passenger Cars, that have never been used which will be sold a bargain. 8

DAVIS BROOKS & CO.,
39 Wall street

April 11.

TO LOCOMOTIVE AND MARINE ENGINE
Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufacture! and for sale by

MORRIS TASKER & MORRIS,

Waterhouse S. E. corner 3d and Walnut Sts., Philadelphia. 11f

LAWRENCE'S ROSENDALE HYDRAULIC CEMENT. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE,
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1f

A. & G. RALSTON & CO., NO. 4
South Front St., Philadelphia, Pa.

Have now on hand, for sale, Railroad Iron, viz: 180 tons 2½ x ¼ inch Flat Punched Rails, 20 ft. long. 25 " 2½ x ¼ " Flange Iron Rails. 75 " 1 x ¼ " Flat Punched Bars for Drafts in Mines. A full assortment of Railroad Spikes, Boat and Ship Spikes. They are prepared to execute orders for every description of Railroad Iron and Fixtures. 11f

SPRING STEEL FOR LOCOMOTIVES,
Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,
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LEXINGTON AND OHIO RAILROAD.

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1.25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9, from Frankfort, other hours as above. 36 1f

STEPHENS' RULING AND MECHANICAL
Drawing Ink, for Engineers, Artists and Designers. This article will be found superior to the best Indian Ink for the above purposes. It does not smear with India rubber or wash off with water. It flows freely from the drawing pen, and never corrodes or encrusts it. It may be used on a plate or slab, with a camel's hair brush, diluting it with water, or thickening it by drying, as required. It has the advantage of being ready for immediate use.

Sold in conical-shaped bottles, convenient for using from, without any stand, at 15 cents each.

ALSO,
STEPHEN'S WRITING FLUIDS.

These compositions, which have so remarkably extended the use of the STEEL PEN, are brought to great perfection, being more easy to write with, more durable, and in every respect preferable to the ordinary ink. In warm climates they have become essential.

They consist of a Blue Fluid, changing into an intense Black color.

A Patent Unchangeable Blue Fluid, remaining a deep Blue color.

A Superior Blue Ink of the common character, but more fluid.

A brilliant Carmine Red, for Contrast Writing.

A Carbonaceous Record Ink, which writes instantly black, and being proof against Chemical Agents, is most valuable in the prevention of frauds.

Also, a new kind of MARKING INK for Linen and Inkstands adapted for, preserving Ink from evaporation and dust.

Sold in Bottles of various sizes, by all Stationers and Booksellers.

Be sure to ask for Stephens' Writing Fluid.

N. B.—These unchangeable Blue Fluids are Patent Articles; the public are therefore cautioned against imitations, which are infringements, to sell or use which is illegal.

Stephens' Select Steel Pens.

The utmost possible care having been bestowed upon the manufacture of these articles, so as to procure the highest finish, they can be confidently recommended, both for flexibility and durability.

All the above articles are prepared by Henry Stephens, the inventor, No. 54 Stamford-street, Blackfriars road, London, and sold by Booksellers and Stationers in bottles of various sizes, and may be had wholesale from the agents in Boston, New York, Philadelphia, Baltimore, Washington, Charleston, New Orleans, and St. Louis.

Wm. W. Rose, Wall-street, New York, is my general agent in the United States.

VALUABLE PROPERTY ON THE MILL
Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 ft. with lathes, work benches, Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 feet two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & CO., Philadelphia. ja45

RICH & CO'S IMPROVED PATENT SALAMANDER SAFES.—Warranted free from dampness, as well as fire and thief proof.

Particular attention is invited to the following certificates, which speak for themselves:

TEST No. 10.

Certificate from Mr. Silas C. Field, of Vicksburgh, Mississippi.

On the morning of the 14th ult., the store owned and occupied by me in this city, was, with its contents, entirely consumed by fire. My stock of goods consisted of oil, rosin, lard, pork, sugar, molasses, liquors, and other articles of a combustible nature, in the midst of which was one of Rich's Improved Patent Salamander Safes, which I purchased last October of Mr. Isaac Bridge, New Orleans, and which contained my books and papers. This safe was red hot, and did not cool sufficiently to be opened until 16 hours after it was taken from the ruins. At the expiration of that time it was unlocked, when its contents proved to be entirely uninjured, and not even discolored. I deem this test sufficient to show that the high reputation enjoyed by Rich's Safes is well merited. S. C. FIELD.

Vicksburgh, Miss., March 9th, 1846.

Certificate from Judge Battaile, of Benton, Mississippi.

In October last I purchased one of Rich's Improved Salamander Safes, which was in the fire at the burning of my law office, and several adjoining buildings in this place, on the 17th of November last, at about half-past one o'clock A. M. of that day. The building was entirely consumed; and I take pleasure in stating that my papers in said safe were preserved without injury. A receipt book which was in said safe, had the glue drawn out of its leather back by the heat, and the back broken; but the leaves of the book, and the writing thereon, were entirely uninjured; and some of the writing which was of blue ink, was also left wholly uneffaced and not in the least faded. Said safe was by the fire heated perfectly red hot, and I do not hesitate to say, that said safe is a perfect security against fire. But the safe tumbled over during the fire, and being heated red hot, the outer sheeting of the door became pressed in, and the bolts of the lock bent, so that it could not be unlocked, and I had to have it broken open. JOHN BATAILLE.

Benton, Miss., December 27, 1845.

Still other Tests in the Great Fire of July 19, 1845.

The undersigned purchased of A. S. Martin, No. 138½ Water street, one of Rich's Improved Patent Salamander Safes, which was in our store, No. 54 Exchange place. The store was entirely consumed in the great conflagration on the morning of the 19th inst. The safe was taken from the ruins 52 hours after, and on opening it, the books and papers were found entirely uninjured by fire, and only slightly wet—the leather on some of the books was parched by the extreme heat. (Signed.)

RICHARDS & CRONKHITE.

New York, 21st July, 1845.

One of Rich's Improved Salamander Safes, which I purchased on the 2d of June last of A. S. Marvin, 138½ Water street, agent for the manufacturer, was exposed to the most intense heat during the late dreadful conflagration. The store which I occupied, No. 46 Broad street, was entirely consumed; the safe fell from the 2d story, about 15 feet, into the cellar, and remained there 14 hours, and when found, I am told, and from its appearance afterwards, should judge that it had been heated to a red heat. On opening it, the books and papers were found not to have been touched by fire. I deem this ordeal sufficient to confirm fully the reputation that Rich's safe has already obtained for preserving its contents against all hazards. (Signed.)

WM. BLOOMGOOD.

New York, 21st July, 1845.

The above safes are finished in the neatest manner, and can be made to order at short notice, of any size and pattern, and fitted to contain plate, jewelry, etc. Prices from \$50 to \$500 each. For sale by A. S. MARVIN, General Agent,

138½ Water st., N. Y.

Also by Isaac Bridge, 76 Magazine street, New Orleans.

Also by Lewis M. Hatch, 120 Meeting street, Charleston, S. C. 16 f

BOSTON AND ALBANY.—WESTERN RAILROAD.—Fare Reduced.

1846. Spring Arrangement. 1846.
Commencing April 1st.

Passenger trains leave daily, Sundays excepted—
Boston 7½ p. m. and 4 p. m. for Albany.
Albany 6½ " and 2½ " for Boston.
Springfield 7 " and 1 " for Albany.
Springfield 7 " and 1½ " for Boston.

Boston, Albany and Troy:
Leave Boston at 7½ a. m., arrive at Springfield at 12 m., dine, leave at 1 p. m., and reach Albany at 6½ p. m.

Leave Boston at 4 p. m., arrive at Springfield at 8 p. m., lodge, leave next morning at 7, and arrive at Albany at 12½ m.

Leave Albany at 6½ a. m., arrive at Springfield at 1 m., dine, leave at 1½ p. m., and arrive at Boston 6½ p. m.

Leave Albany at 2½ p. m., arrive at Springfield at 8½ p. m., lodge, leave next morning at 7, and arrive at Boston at 12 m.

The trains of the Troy and Greenbush railroad connect with all the above trains at Greenbush.

Fare from Boston to Albany, \$5; fare from Springfield to Boston or Albany, \$2 75.

Boston and New York, via Springfield: Passengers leaving Boston at 4 p. m., arrive in Springfield at 8 p. m., proceed directly to Hartford and New Haven, and thence by steamers to New York, arriving at 5 o'clock a. m.

For Buffalo: the trains for Buffalo leave Albany at 7½ a. m. and 7 p. m., arriving at Buffalo at 8 a. m. and 8 p. m. next day. Returning, arrive at Albany at 4 a. m. and 4 p. m.

New York and Boston, via Albany: the trains from Boston arrive at Albany in season for the 7 o'clock boats to New York. Returning, the boats, leaving New York at 5 and 7 p. m., reach Albany at 5 a. m., in ample season for the morning trains to Boston. Steamboats also leave Albany at 7 a. m. and 5 p. m. and stop at the usual landing places upon the river.

The trains of the Springfield, Hartford and New Haven railroad, connect at Springfield, and passengers from Albany or Boston proceed directly on to Hartford and New Haven.

Montreal: through tickets to Montreal may be obtained in Boston, by which passengers may proceed to Troy, and thence by stage via Chester, Elizabeth, etc., and in the season of navigation by canal to Whitehall, and thence by the splendid steamers of Lake Champlain to St. John, via Burlington, and thence by railroad and steamers to Montreal.

The trains of the Hudson and Berkshire railroad connect at Chatham and State Line.

The Housatonic railroad connects at State Line. The trains of the Connecticut River railroad connect at Springfield, and passengers may proceed without delay to Northampton, and thence by stage to Greenfield, Brattleboro, Bellows Falls, Hanover, Haverhill, etc.

Stages leave West Brookfield for Ware, Endfield, New Baintree and Hardwick; also leave Palmer, for Three Rivers, Belchertown, Amherst, Ware and Monson; Pittsfield for North and South Adams, Williamstown, Lebanon Springs, etc.

Merchandise trains run daily (Sundays excepted) between Boston, Albany, Troy, Hudson, Northampton, Hartford, etc.

For further information apply to C. A. Read, agent, 27 State street, Boston, or to S. Witt, agent, Albany.

JAMES BARNES,
Superintendent and Engineer.

Western Railroad Office,
Springfield, April 1, 1846. 14 1y

MANUFACTURE OF PATENT WIRE

Ropes and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by

JOHN A. ROEBLING, Civil Engineer,

Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Ships, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition. 2v19 1y

BACK VOLUMES OF THE RAILROAD JOURNAL

for sale at the office, No. 23 Chambers street.

RAILROAD IRON.—The subscriber having taken contracts for all the Railroad Iron he can manufacture at his Iron Works at Trenton, until July next, will gladly receive orders for any quantity to be delivered after that time, not exceeding thirty tons per day. Also has on hand and will make to order Bar Iron, Braziers' Rods, Wire Rods and Iron Wires of all sizes, warranted of the best quality. Also manufactures and has on hand Refined American Isinglass, warranted equal in strength to the Russian. Also on hand a constant supply of Glue, Neats' Oil, &c. &c.

PETER COOPER, 17 Burling Slip.
New York, January 23d, 1846. 1y 10

C. J. F. BINNEY,
GENERAL COMMISSION MERCHANT
and Agent for Coal, and also Iron Manufactures, etc.

No. 1 CITY WHARF, Boston.
Advances made on Consignments.
Refer to Amos Binney, Boston.
Grant & Stone, } Philadelphia.
Brown, Earl & Erringer, }
Weld & Seaver, Baltimore.
December 8, 1845. 1m 50

SCRIBNER'S ENGINEERS' AND MECHANICS' Companion. For sale at this office.
Price \$1-50.

LARD OIL FOR MACHINERY, ETC.

Winter pressed, cleansed from gum, and manufactured expressly for engines and machinery of all kinds, railroads, steamboats, woollen and other manufactures, and for burning in any lamp without clogging the wick. Engineers of railroads and others who have used this oil, and to whom reference can be made, give it preference over the best sperm for its durability, and not requiring to be cleaned off like that, and costing about two-thirds the price. For sale by the barrel, and samples can be sent for trial, by addressing

C. J. F. BINNEY,
Agent for the Manufacturer,
Boston, Mass.

ENGINEERS' AND SURVEYERS' INSTRUMENTS MADE BY EDMUND DRAPER, Surviving partner of STANCLIFFE & DRAPER.



No 23 Pear street, near Third, below Walnut, Philadelphia.

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—

As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

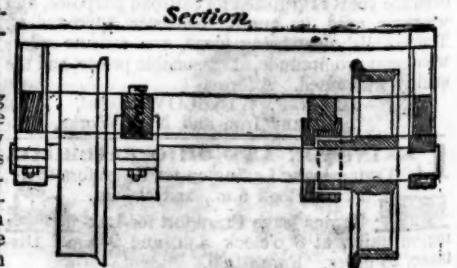
Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,
GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE-INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

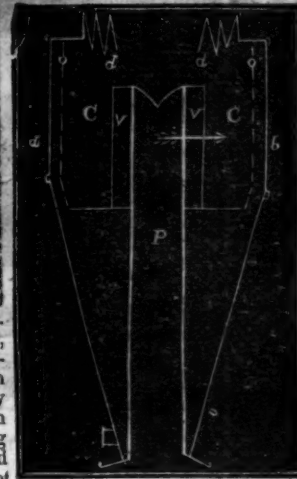
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

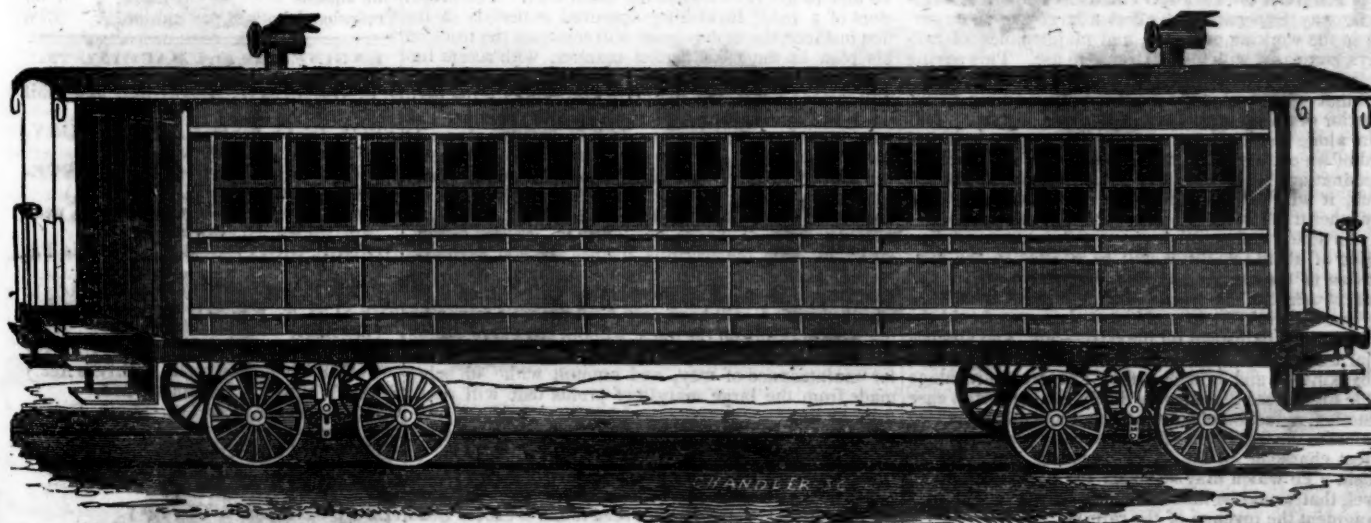
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

*** The letters in the figures refer to the article given in the Journal of June, 1844. ja45



BENTLEY'S PATENT TUBULAR STEAM BOILER. The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

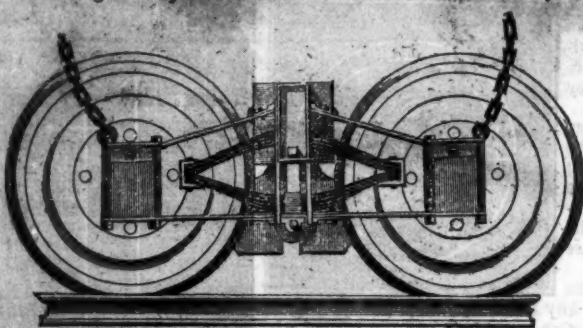
DAVENPORT & BRIDGES' CAR WORKS.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

RAY'S EQUALIZING RAILWAY TRUCK—THE SUBSCRIBER

ber having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East

river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846.

W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the best and most economical truck now in use.

[Signed,]

WILLIAM ROE, Supt of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845.

[Signed,] G. A. NICOLL,

Supt. Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use.

[Signed,] T. L. SMITH,

Jersey City, November 4, 1845.

N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car. For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

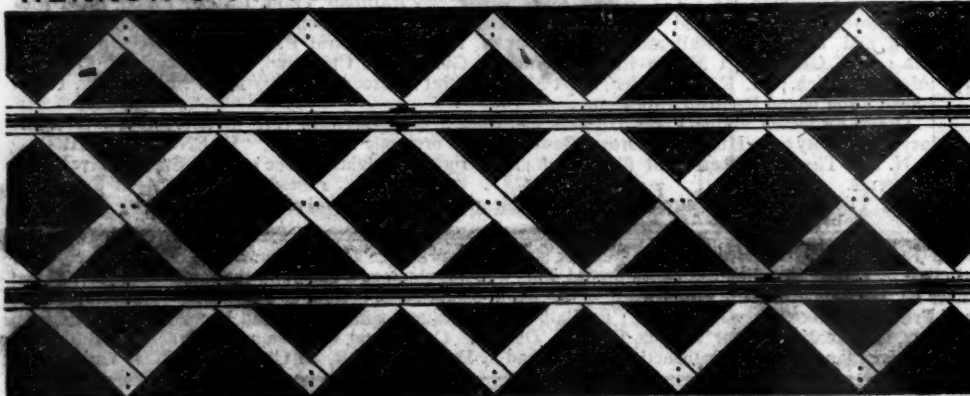
Long Island Railroad Depot,

[Signed,] JOHN LEACH,

Jamaica November 12, 1845.

Sup't Motive Power.

HERRON'S PATENT AMERICAN RAILWAY TRACK,



As seen stripped of the top ballasting

HERRON'S IMPROVEMENTS IN RAILWAY Superstructure effect a large aggregate saving in the working expenses, and maintenance of railways, compared with the best tracks in use. This saving is effected—1st, Directly by the amount of the increased load that will be hauled by a locomotive, owing to the superior evenness of surface, of line and of joint. This gain alone may amount to 20 per cent. on the usual load of an engine.—2d, In consequence of the thorough combination, bracing, and large bearing surface of this track, it will be maintained in a better condition than any other track in use, at about one-third the expense.—3d, As action and reaction are equal, a corresponding saving of about two-thirds will be effected in the wear and tear of the engines and cars, by the even surface and elastic structure of the track.—4th, The great security to life, and less liability to accident or damage, should the engine or cars be thrown off the rails.—5th, The absence of jar and vibration, that shake down retaining walls, embankments and bridges.—6th, The great advantage of the high speed that may be safely attained, with ease of motion, reduction of noise, and consequently increased comfort to the traveller.—7th, The really permanent and perfect character of the Way, insuring regularity of transit. To which may be added the great increase of travel, that would be induced by the foregoing qualities to augment the revenue of the railroad.

The cost of the Patent track will depend on the quantity and cost of iron and other materials; but it will not exceed, even including the preservation of the timber, the average cost of the tracks on our principal railroads. Generally, the timber structure, fastenings and workmanship, exclusive of the cost of the iron rails, will be from \$2,300 to \$4,000 per mile. On this structure, rails of from 40 to 50 lbs. per yard, will be equal in effect to

60 and 70 lbs. rails laid in the usual way. The proprietors of a road, furnishing approved materials in the first instance, the undersigned will construct the track on his plan in the most perfect manner, with recent improvements, for one thousand dollars per mile. And he will farther contract to maintain said track for the period of ten years, furnishing such preserved timber and iron fastenings as may be required, and keeping said track in perfect adjustment, under any trade not exceeding 100,000 tons per annum, or its equivalent in passenger transportation, for Two hundred dollars per mile per annum. To insure the faithful performance of this contract, he will pledge one-fourth of the cost of construction, with the accruing interest thereon, regularly vested, until the completion of the contract. So that a company, by securing payment to the undersigned at the specified period, will have only \$750 per mile to pay for the workmanship on the track, without any charge being made for the use of the patent, the subsequent payments, for maintenance of way, and amount withheld, being made from the large margin of profits that will result from its use.

JAMES HERRON,

Civil Engineer and Patentee.

No. 277 South Tenth St., Philadelphia.

* A general average of the repairs done on six of the most successful railroads in this country, for a period of from six to eight years' use has been found to exceed \$625 per mile per annum, exclusive of renewal of rails. But few roads in this country carry as much as 100,000 tons per annum. When a road exceeds that quantity, the repairs due to the additional tonnage, up to 200,000 tons, will be charged at one mill per ton; over the latter, and not exceeding 300,000 tons, nine-tenths of a mill, etc. Where there are two tracks to maintain, a large reduction upon those rates will be made.

THE AMERICAN RAILROAD

JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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One square ".....	1 00
Professional notices per annum.....	5 00

ENGINEERS and MACHINISTS.

J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
ROGERS, KETCHUM and GROSVENOR, Patterson, N. J. (See Adv.)
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
NORRIS, BROTHERS, Philadelphia Pa. (See Adv.)
KITE'S Patent Safety Beam. (See Adv.)
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
ROSS WINANS, Baltimore, Md.
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PHENIX FOUNDRY, N. Y.
ANDREW MENEELY, West Troy.
JOHN F. STARR, Philadelphia, Pa.
MERRICK & TOWNE, do.
HINCKLEY & DRURY, Boston.
C. C. ALGER, Stockbridge Iron Works, 191 Stockbridge, Mass.